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Casparian et al.

(54) GAMING KEYBOARD WITH HAND REGISTRATION FEATURES

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(56) References Cited

U.S. PATENT DOCUMENTS

4,279,021 A 7/1981 See et al. 4,302,011 A 11/1981 Pepper, Jr. (Continued)

FOREIGN PATENT DOCUMENTS

WO 97/27529 7/1997 G06F 3/023

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(57) ABSTRACT

A gaming keyboard and related methods are disclosed that provide features to enhance the computer gaming experience. A keyboard connection pod is disclosed that improves power capabilities of the keyboard thereby allowing for enhanced features that require more power. A panic mechanism is disclosed that can be triggered to cause one or more selected keys to change states. Keycap rim-lighting is disclosed that provides improved visual indication of key positions. A hand registration enhancement is disclosed including a spacebar having a thumb notch and/or WASD and spacebar keys with different tactile response than other keys. Function keys are disclosed that are positioned proximate to allow reduced movement of the left hand. An integrated cord wrap tray is disclosed for a peripheral such as a mouse. Other features and variations are also disclosed.

16 Claims, 9 Drawing Sheets

